

COLDWATER BRIDGE
Old Railroad Bed Road spanning Coldwater Creek
Fayetteville Vicinity
Lincoln county
Tennessee

HAER NO. TN-20

HAER
TENN,
52-FAY.V,
1-

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
NATIONAL PARK SERVICE
Department of the Interior
Southeast Region
Atlanta, georgia 30303

HISTORIC AMERICAN ENGINEERING RECORD

HAER
TENN,
52-FAY.V,
1-

Coldwater Bridge

HAER No. TN-20

Location: Spanning Coldwater Creek on the Old Railroad Bed Road
Fayetteville vicinity, Lincoln County, Tennessee

Date of Construction: 1889

Present Owner: State of Tennessee
Department of Transportation
Nashville, Tennessee

Present Use: Vehicular bridge

Significance: The 1889 Coldwater Bridge derives its significance as
an unusual example of the pony Warren truss type. The
bridge also possesses historical significance in
Lincoln County transportation (railroad) history.

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Edited and
Transmitted by: Jean P. Yearby, HAER, 1987

The Coldwater Creek Bridge is located over Coldwater Creek in the Coldwater community in rural western Lincoln County. It is located on the old roadbed for the Decatur, Chesapeake, and New Orleans Railroad and was originally constructed in 1889 for use as a railroad bridge. The Coldwater Bridge derives engineering significance from its merits as an unusual example of the pony Warren truss type and historical significance for its role in the development of transportation and commerce in Lincoln County.

In 1887, the Decatur, Chesapeake, and New Orleans Railway Company (or Decatur Road) was incorporated to construct a railway between Decatur, Alabama, and Gallatin, Tennessee; a distance of 135 miles. However, due to financial problems, the only section to ever actively operate was a 36 mile section from Capshaw, Alabama, to Fayetteville, Tennessee. Of this, about twenty miles was in Lincoln County. The Decatur line went into receivership in 1890 but was not sold until 1893. A reorganization of the line resulted in the Middle Tennessee and Alabama (MTA) Railway Company. During the next four years, a short section of the previously-completed rail line in Bedford County was dismantled, as was the section in northeast Lincoln County from Fayetteville to Booneville. In late 1897, the Nashville, Chattanooga, and St. Louis Railroad (N.C. & St. L), of which L&N was the major stockholder, purchased the line which by then consisted of a 27.4 mile route from Fayetteville southwest to north Alabama. (The line was later extended ten miles farther south to Capshaw.)

Over the following years, the line served local needs, and many small communities grew around railroad stops on the line. One of these communities was Coldwater, located where the railroad line crossed Coldwater Creek in Lincoln County. In 1929, the line was abandoned and the county purchased the old roadbed and converted it to a county road. This bridge is the last railroad bridge on this thirty mile line; the others having been replaced.

Constructed in 1889, the pin-connected Coldwater Bridge is 101.0 feet in length and contains two spans, each a 50.0-foot pin-connected steel pony Warren truss. Each truss is 8.0 feet in height. The curb-to-curb width is 13.3 feet, and the out-to-out width is 21.0 feet.

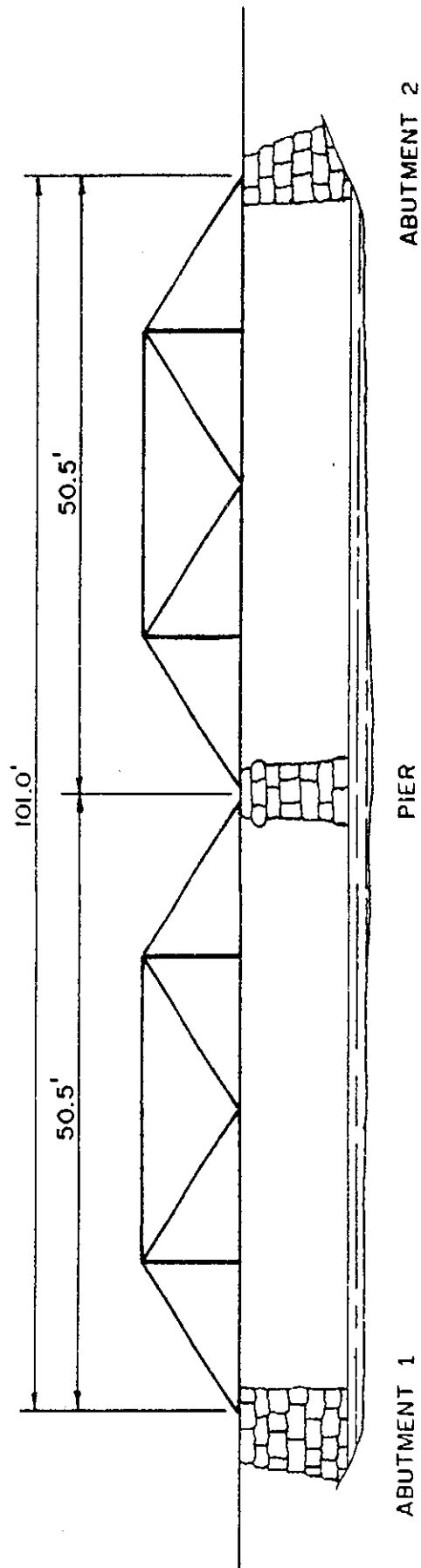
Each truss is in good condition, with only a small amount of corrosion found in the bottom chord. The members are apparently of steel composition with "Carnegie" stamped on them. The stringers that the deck sits on may date from a later time and contain the stamped phrase "Tennessee Steel." A number 113972A(?) is on the member connecting the end post to the pier.

Composition of each member is substantially different from other bridges yet to be inventoried in Tennessee. Due to the low number of railroad bridges inventoried, it is unclear if the composition of these trusses is typical for railroad bridges. Each top chord is composed of two large side-by-side channels with a smaller channel riveted and welded inside. The end posts are

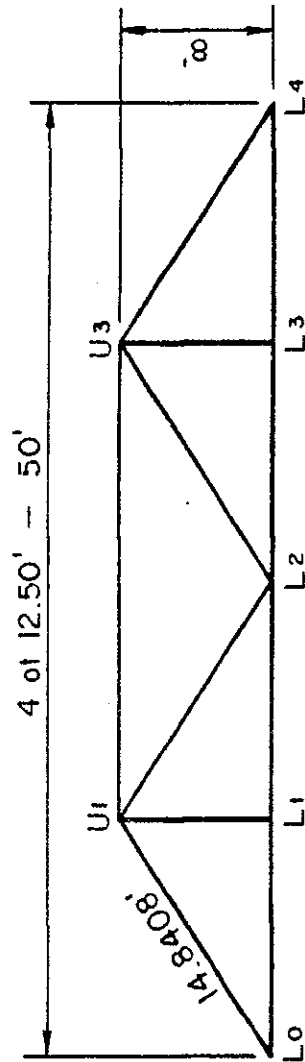
identical to the top chord. The top chords and end posts are joined with cover plates, although the cover plates have been cut and do not extend over the pinned connections. The bottom chord contains three elements: eyebars, an I-beam and a tension rod (bars). On the outside are paired rectilinear eyebars which extend across two panels before connecting to a vertical. The eyebars connect on the exterior side of the end post. Between these eyebars is an I-beam whose end encircles the pinned connection with the beam, then extending a few inches past the connection. Below these members is one cylindrical rod; this threaded tension rod passes completely through the web of the end post where it is secured with a hex nut. The verticals or posts are large paired rectilinear eyebars. A buttressed effect is created by large paired angles riveted together that are pinned at the top chord connection and extend at a diagonal angle to the outside of the floor beam where they are riveted to the floor beam. (It is this member that creates the unusually wide 21 foot out-to-out width.) The diagonals appear to be two large eyebars with a channel riveted and welded between them.

The bridge appears to have been altered very little over the years. The three stringers that the deck rests on may be of a later date than the rest of the bridge (perhaps from the 1920s when the concrete deck was added). However, their size and configuration are probably similar to the original stringers. A concrete deck has been added to replace the railroad tracks. Also, the cover plates have been severed to expose the pinned connections. While this feature sometimes indicates that a bridge has been moved, in this situation, it seems more probable that the cover plates were cut for maintenance purposes. A 1904 publication contains a photograph of Coldwater clearly showing this bridge.¹ Thus, while it is possible that this bridge was a "second-hand" bridge moved to this site between 1889 and 1904, it is more likely that this bridge is in its original location and was erected in 1889. Regardless, it retains a high level of integrity, both in its historical context and in its engineering aspects.

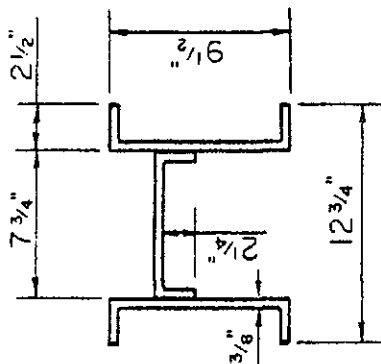
¹ Fayetteville Observer, June 13, 1889.



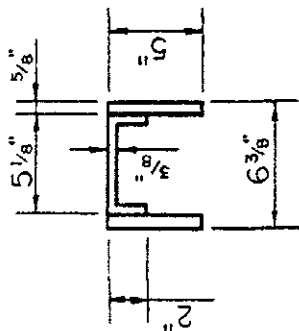
COLDWATER BRIDGE
52-SR-274-6.82
ELEVATION
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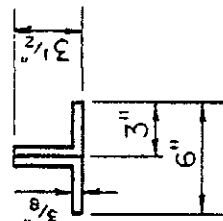
Note: The lower chord is continuous from L0 to L2.



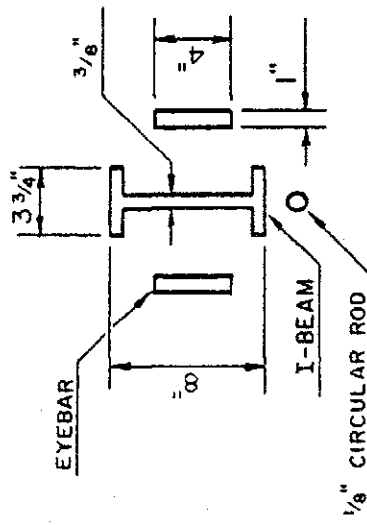
END POST AND TOP CHORD



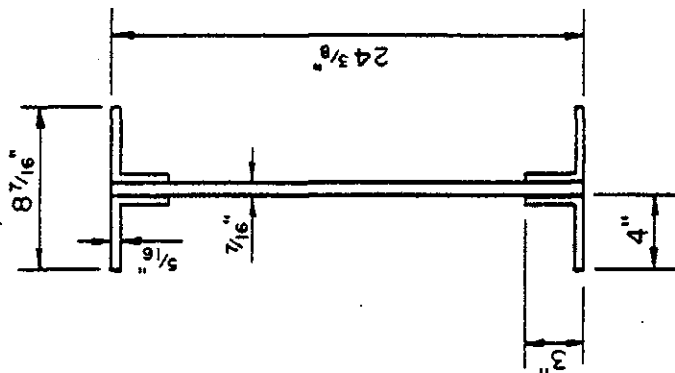
DIAGONAL



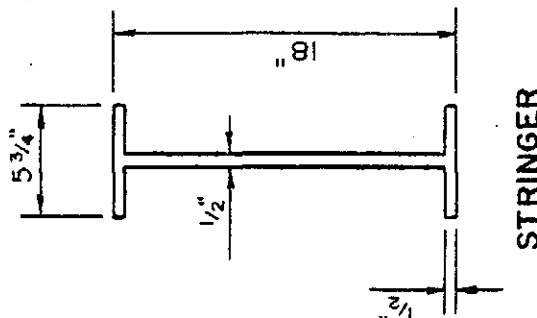
BUTRESSED HIP VERTICLE
(BRACE FROM OUTSIDE CONNECTION
OF UPPER CHORD TO THE END OF
FLOOR BEAM)



LOWER CHORD



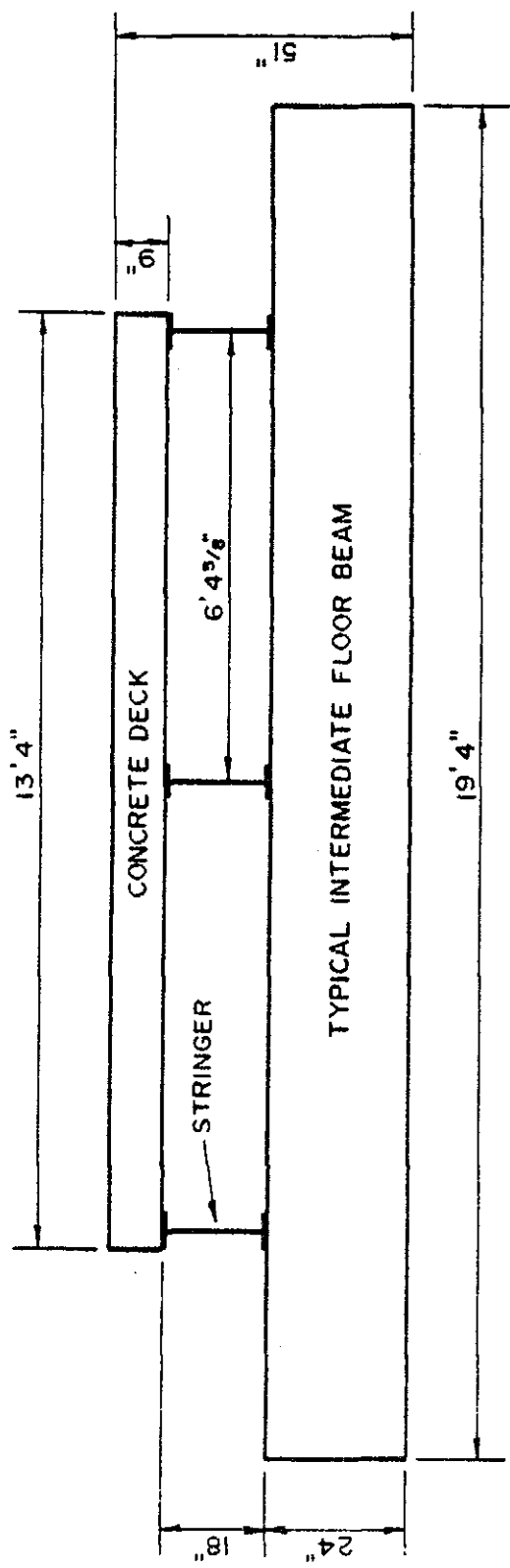
FLOOR BEAM



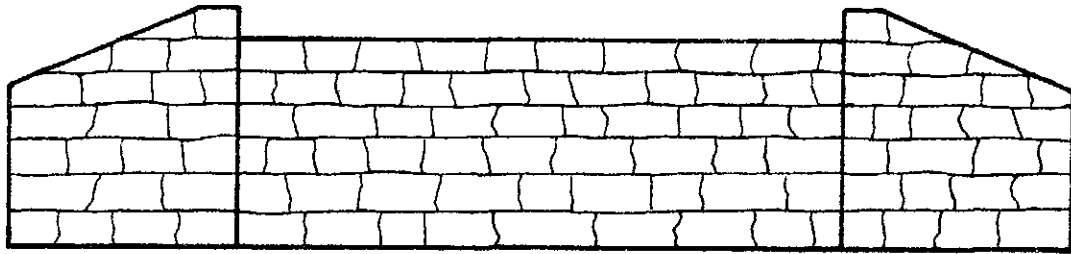
STRINGER

Notes: Hip Verticals (U₁-L₁, U₃-L₃) are twin eyebars 3 1/8" x 1/8" and are 8.0' long, center of pin to center of pin.
All connection pins are 3 3/4" in diameter.
Lower Chord is continuous from L₀ to L₂.

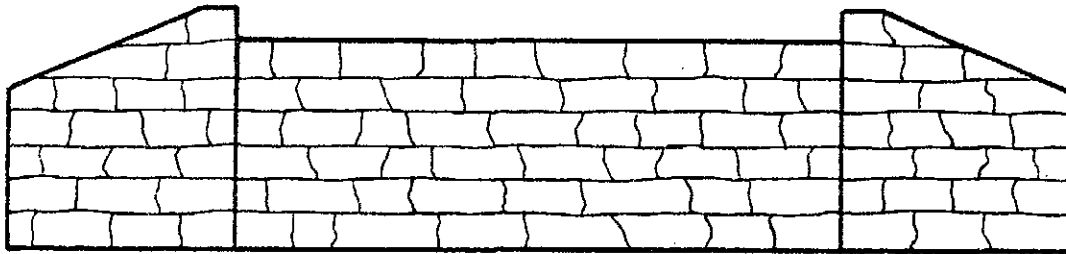
COLDWATER BRIDGE
52-SR-274-6.82
DETAILS OF FLOOR SYSTEM
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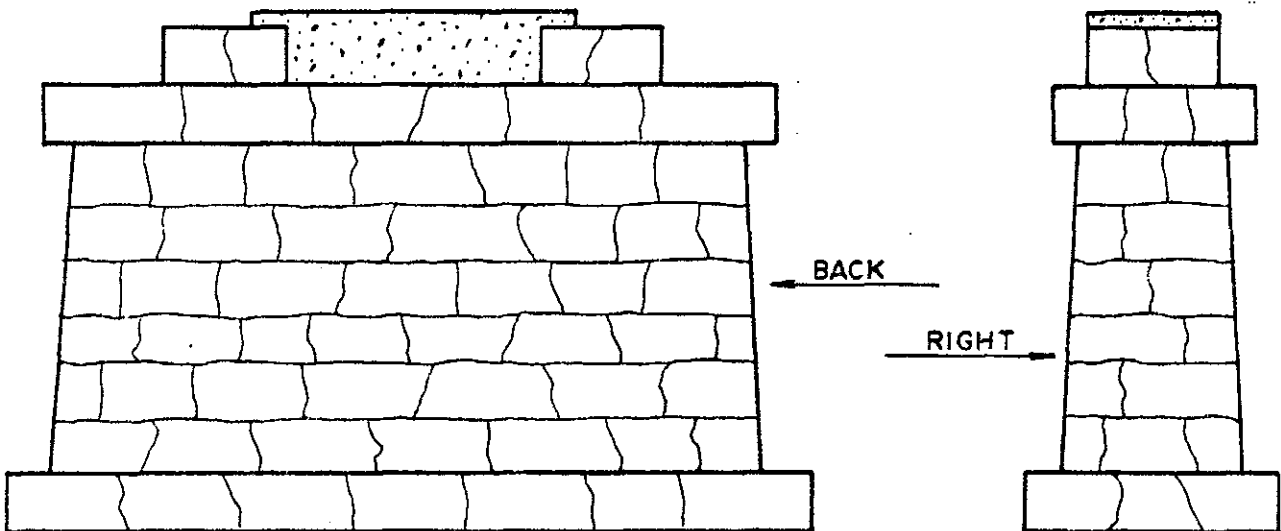
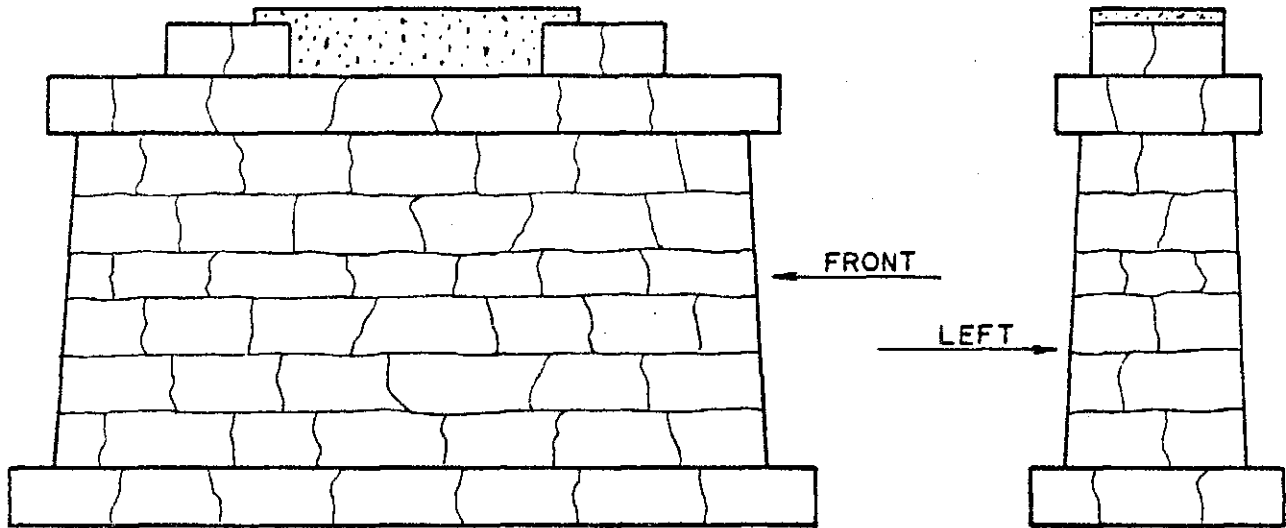
Note: Floor beams at the hip verticals are 21.0' in width.
Bottom laterals are 1 1/4" round.

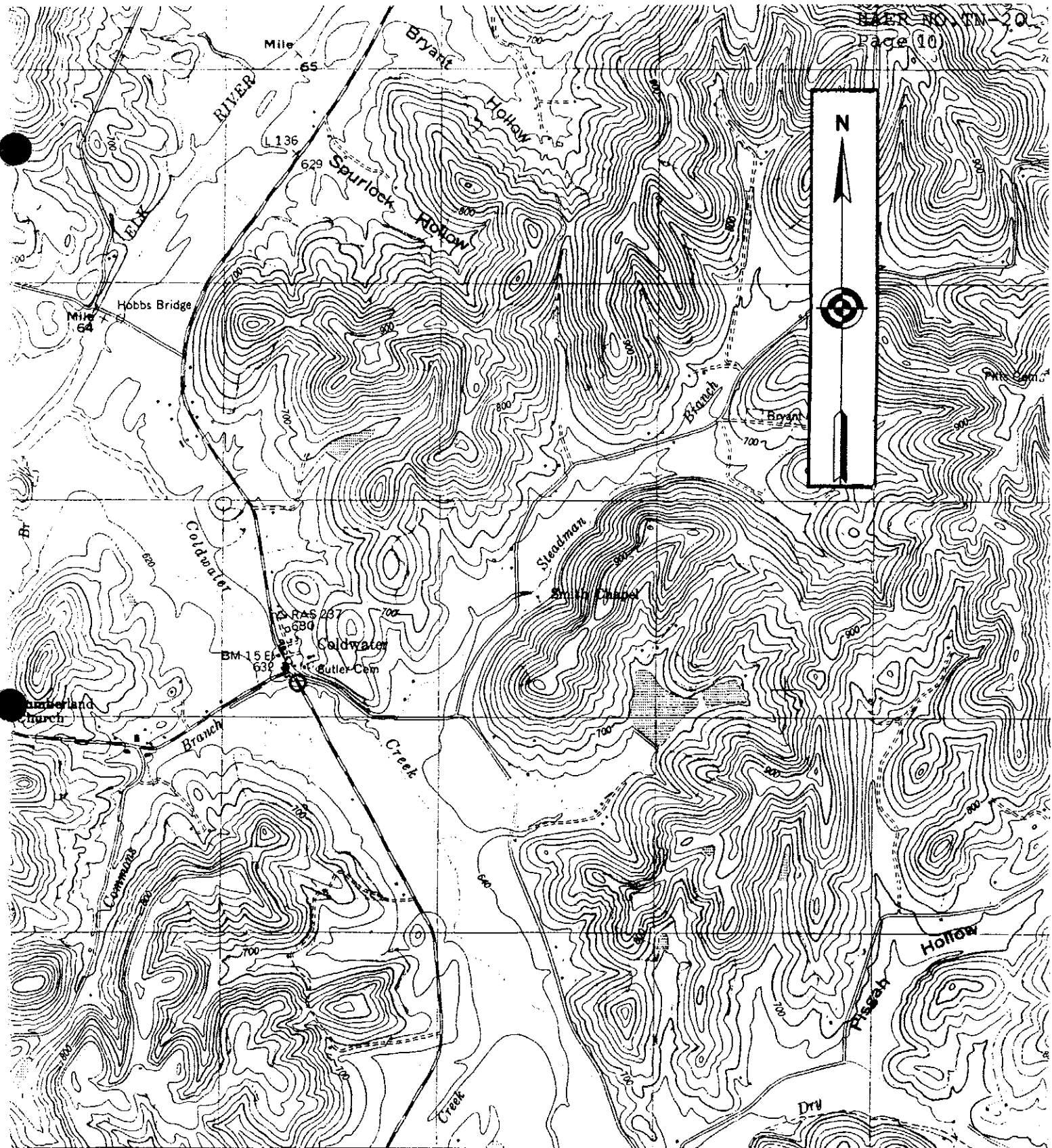


ABUTMENT 1



ABUTMENT 2





GENERAL LOCATION MAP
COLDWATER CREEK BRIDGE
LINCOLN COUNTY

